Mendel’s Pea Plant Experiment Virtual Lab Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Guided Notes

**Introduction:**

Hello. My name is \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_. I lived in \_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_ long before anyone knew about \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. I \_\_\_\_\_\_\_\_\_\_\_\_\_\_ with \_\_\_\_\_\_\_\_\_\_\_ to study how \_\_\_\_\_\_\_\_\_\_\_\_are \_\_\_\_\_\_\_\_\_\_\_\_\_\_from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to \_\_\_\_\_\_\_\_\_\_\_\_\_\_and discovered the basic rules of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_that are still used in your textbooks today. Come and try some of my experiments to see what you can discover about inheritance.

I used \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plants because they grow \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and easily, and it is easy to see and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ their different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Section-Plant:** Observe what happens when he plants the 5 pea plants.

Roll you cursor over each plant and complete the table below using the key

Height= Tall or Short

Flower Color= Purple or White

Pea Color= Yellow or Green

Pea Shape= Round or Winkled

Pod Color= Yellow or Green

Pod Shape= Smooth or Pinched

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Plant | Height | Color of Flower | Pea Color | Pea Shape | Pod Color | Pod Shape |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |

**Section - Predictions**

* Go to the predictions sections. Predict outcomes of possible crosses and explain the outcomes. Make at least five predictions/explanations

Now that you have a stock of pea plants, make five crosses and see if you can find any patterns in inheritance. Remember that you can breed a pea plant with another plant, or with itself. Drag the pea plants you want to breed into the boxes marked Parent 1 and Parent 2 and click the “Cross” button. If you want to cross a pea plant with itself, drag one pea plant into a parent box and click on the “Cross” button.

Write down your results in the table:

Cross #1:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Parent 1 | Parent 2 | F1 | F2 | F3 | F4 | F5 |
| Height |  |  |  |  |  |  |  |
| Flower Color |  |  |  |  |  |  |  |
| Pea Color |  |  |  |  |  |  |  |
| Pea Shape |  |  |  |  |  |  |  |
| Pod Color |  |  |  |  |  |  |  |
| Pod Shape |  |  |  |  |  |  |  |

Cross #2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Parent 1 | Parent 2 | F1 | F2 | F3 | F4 | F5 |
| Height |  |  |  |  |  |  |  |
| Flower Color |  |  |  |  |  |  |  |
| Pea Color |  |  |  |  |  |  |  |
| Pea Shape |  |  |  |  |  |  |  |
| Pod Color |  |  |  |  |  |  |  |
| Pod Shape |  |  |  |  |  |  |  |

Cross #3:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Parent 1 | Parent 2 | F1 | F2 | F3 | F4 | F5 |
| Height |  |  |  |  |  |  |  |
| Flower Color |  |  |  |  |  |  |  |
| Pea Color |  |  |  |  |  |  |  |
| Pea Shape |  |  |  |  |  |  |  |
| Pod Color |  |  |  |  |  |  |  |
| Pod Shape |  |  |  |  |  |  |  |

Cross #4

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Parent 1 | Parent 2 | F1 | F2 | F3 | F4 | F5 |
| Height |  |  |  |  |  |  |  |
| Flower Color |  |  |  |  |  |  |  |
| Pea Color |  |  |  |  |  |  |  |
| Pea Shape |  |  |  |  |  |  |  |
| Pod Color |  |  |  |  |  |  |  |
| Pod Shape |  |  |  |  |  |  |  |

Cross #5:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Parent 1 | Parent 2 | F1 | F2 | F3 | F4 | F5 |
| Height |  |  |  |  |  |  |  |
| Flower Color |  |  |  |  |  |  |  |
| Pea Color |  |  |  |  |  |  |  |
| Pea Shape |  |  |  |  |  |  |  |
| Pod Color |  |  |  |  |  |  |  |
| Pod Shape |  |  |  |  |  |  |  |

Cross two pea plants with themselves.

* What pea shapes do the offspring have in cross 1?
* What did you learn about your peas?
* Why did Mendel experiment on pea plants?
* What is a characteristic?
* What is a trait?

**Section - Pedigree**

* List the dominant traits List the recessive traits